Refine Search

Search Results -

Terms	Documents
L2 same select$3	8

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L3

Refine Search | Recall Text | Clear | Interrupt

Search History

DATE: Friday, January 20, 2006 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
	DB=PGPB; PLUR=YES; OP=OR		
L3	L2 same select$3	8	L3
L2	L1 same (chip or IC or "integrated circuit")	71	L2
L1	(memory adj1 (card or board)) near10 (USB or "universal serial bus")	1181	L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
L1 and L4	3

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L5

Refine Search | Recall Text | Clear | Interrupt

Search History

DATE: Friday, January 20, 2006 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR			
L5	l1 and L4	3	L5
L4	L3 same select$3	19	L4
L3	L2 same (chip or IC or "integrated circuit")	180	L3
L2	(memory adj1 (card or board)) same (USB or "universal serial bus")	2366	L2
L1	439/638,639.ccls.	1023	L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
L2 same select$3	0

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L5

Refine Search

Recall Text Clear Interrupt

Search History

DATE: Friday, January 20, 2006 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L5	L2 same select$3	0	L5
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR			
L4	L2 same select$3	8	L4
DB=PGPB; PLUR=YES; OP=OR			
L3	L2 same select$3	8	L3
L2	L1 same (chip or IC or "integrated circuit")	71	L2
L1	(memory adj1 (card or board)) near10 (USB or "universal serial bus")	1181	L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
(439/59 |439/79 |439/945 |361/684 |361/686 |361/737 |710/300 |710/301 |710/302 |710/303 |710/62 |710/74 |710/313 |710/316 |711/100 |711/103).ccls.	10318

Database:
- US Pre-Grant Publication Full-Text Database
- US Patents Full-Text Database
- US OCR Full-Text Database
- EPO Abstracts Database
- JPO Abstracts Database
- Derwent World Patents Index
- IBM Technical Disclosure Bulletins

Search: L6

Refine Search

Recall Text | Clear | Interrupt

Search History

DATE: Friday, January 20, 2006 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR			
L6	710/300-303,62,74,313,316;711/100,103;361/684,686,737;439/59,79,945.ccls.	10318	L6
DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L5	L2 same select$3	0	L5
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR			
L4	L2 same select$3	8	L4
DB=PGPB; PLUR=YES; OP=OR			
L3	L2 same select$3	8	L3
L2	L1 same (chip or IC or "integrated circuit")	71	L2
L1	(memory adj1 (card or board)) near10 (USB or "universal serial bus")	1181	L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
L2 and L6	13

Database:
- US Pre-Grant Publication Full-Text Database
- US Patents Full-Text Database
- US OCR Full-Text Database
- EPO Abstracts Database
- JPO Abstracts Database
- Derwent World Patents Index
- IBM Technical Disclosure Bulletins

Search: L7

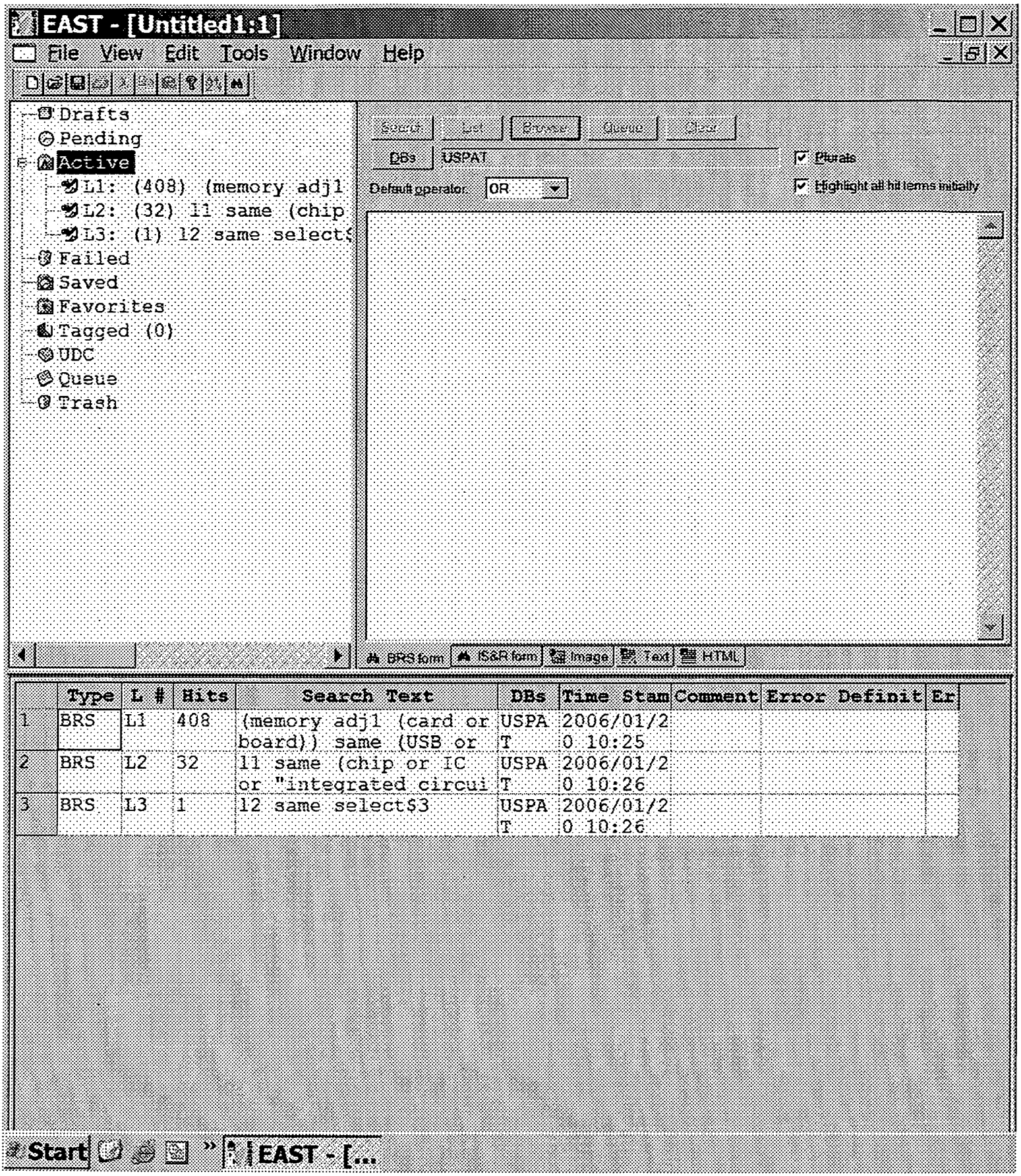
Refine Search | Recall Text | Clear | Interrupt

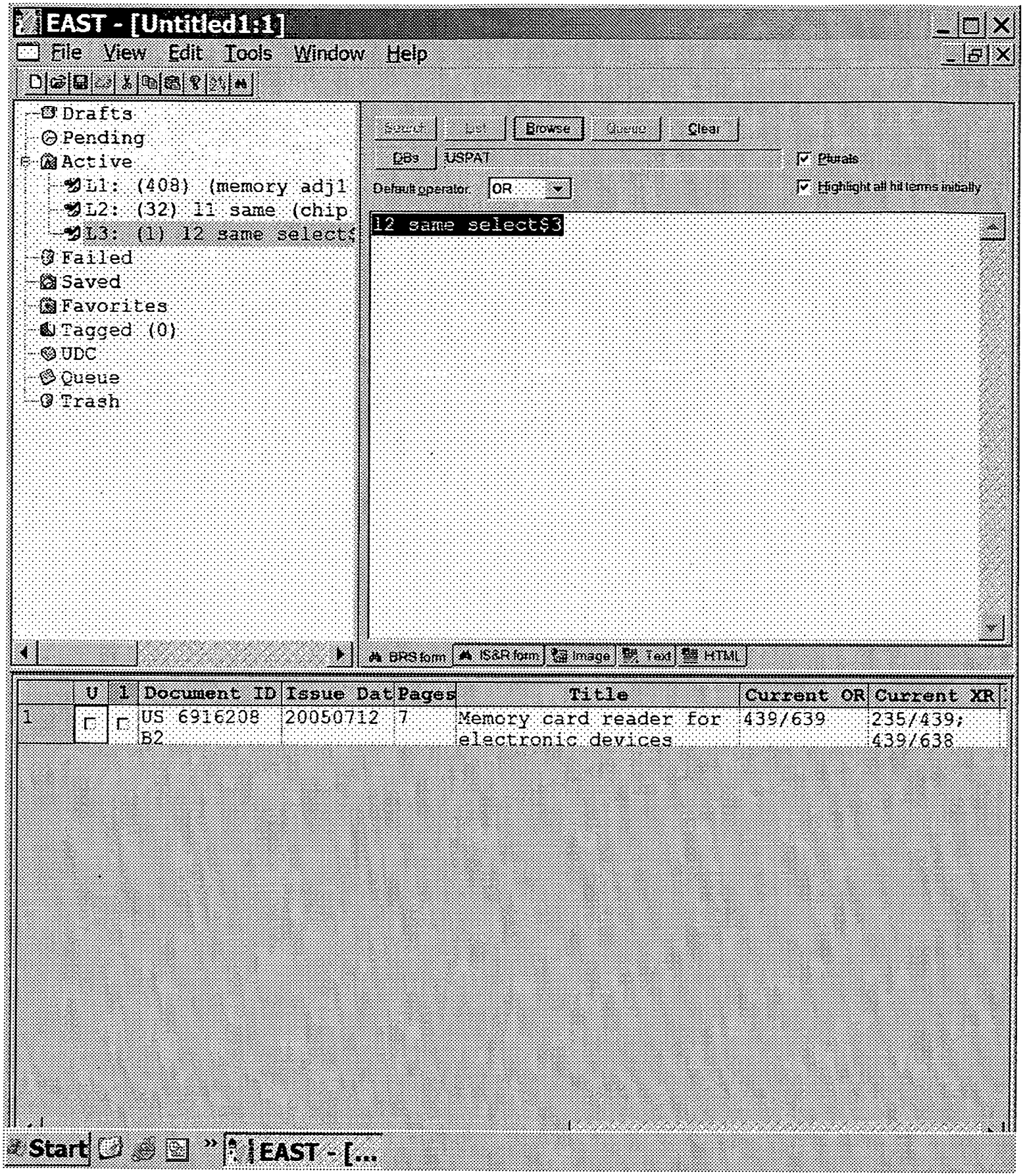
Search History

DATE: Friday, January 20, 2006 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR			
L7	l2 and L6	13	L7
L6	710/300-303,62,74,313,316;711/100,103;361/684,686,737;439/59,79,945.ccls.	10318	L6
DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L5	L2 same select$3	0	L5
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR			
L4	L2 same select$3	8	L4
DB=PGPB; PLUR=YES; OP=OR			
L3	L2 same select$3	8	L3
L2	L1 same (chip or IC or "integrated circuit")	71	L2
L1	(memory adj1 (card or board)) near10 (USB or "universal serial bus")	1181	L1

END OF SEARCH HISTORY


EAST - [Untitled1:1]
File View Edit Tools Window Help
Drafts
Pending
Active
L1: (408) (memory adj1
L2: (32) l1 same (chip
L3: (1) l2 same select$
Failed
Saved
Favorites
Tagged (0)
UDC
Queue
Trash
Search Edit Browse Queue Clear
DBs USPAT
Plurals
Default operator: OR
Highlight all hit terms initially
BRS form IS&R form Image Text HTML
Type L # Hits Search Text DBs Time Stam Comment Error Definit Er
1 BRS L1 408 (memory adj1 (card or board)) same (USB or USPAT 2006/01/20 10:25
2 BRS L2 32 l1 same (chip or IC or "integrated circui USPAT 2006/01/20 10:26
3 BRS L3 1 l2 same select$3 USPAT 2006/01/20 10:26
Start
EAST - [...


EAST - [Untitled1:1]
File View Edit Tools Window Help
Drafts
Pending
Active
L1: (408) (memory adj1
L2: (32) l1 same (chip
L3: (1) l2 same select$
Failed
Saved
Favorites
Tagged (0)
UDC
Queue
Trash
Search
Edit
Browse
Queue
Clear
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USPAT
Plurals
Default operator:
OR
Highlight all hit terms initially
l2 same select$3
BRS form
IS&R form
Image
Text
HTML
U
1
Document ID
Issue Dat
Pages
Title
Current OR
Current XR
1
US 6916208 B2
20050712
7
Memory card reader for electronic devices
439/639
235/439; 439/638
Start
EAST - [...

Results for "((memory card) and (usb or (universal serial bus))<in>metadata)"

Your search matched 3 of 1302021 documents.

A maximum of 100 results are displayed, 25 to a page, sorted by Relevance in Descending order.

» Search Options

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New Search

Modify Search

((memory card) and (usb or (universal serial bus))<in>metadata)

Check to search only within this results set

» Key

Display Format: Citation Citation & Abstract

IEEE JNL	IEEE Journal or Magazine
IEE JNL	IEE Journal or Magazine
IEEE CNF	IEEE Conference Proceeding
IEE CNF	IEE Conference Proceeding
IEEE STD	IEEE Standard

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1. **Memory device packaging - from leadframe packages to wafer level packages**
Wei Koh;
High Density Microsystem Design and Packaging and Component Failure Analysis, 2004. HDP '04. Proceeding of the Sixth IEEE CPMT Conference on
30 June-3 July 2004 Page(s):21 - 24
Digital Object Identifier 10.1109/HPD.2004.1346666
AbstractPlus | Full Text: PDF(598 KB) IEEE CNF

2. **Bad peripherals**
Arce, I.;
Security & Privacy Magazine, IEEE
Volume 3, Issue 1, Jan-Feb 2005 Page(s):70 - 73
Digital Object Identifier 10.1109/MSP.2005.6
AbstractPlus | Full Text: PDF(448 KB) IEEE JNL

3. **System-on-chip design for TV-centric home networks**
Qiang Peng; Jin Jing;
Consumer Communications and Networking Conference, 2004. CCNC 2004. First IEEE
5-8 Jan. 2004 Page(s):501 - 506
Digital Object Identifier 10.1109/CCNC.2004.1286912
AbstractPlus | Full Text: PDF(1416 KB) IEEE CNF

Memory device packaging - from leadframe packages to wafer level packages

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Abstract
The digital revolution has taken the consumer electronics by a storm in just two-short years. Portable and handheld electronics devices now have insatiable appetite for digital storage. Hence, **memory cards** in the form of **USB** Drive (U-drive), compact flash (CF), secured digital (SD), memory stick, and multimedia card (MMC) are now proliferating in the market. Moreover, the volatile memory dynamic random access memory (DRAM) for PC and notebook computing and gaming are also increasing in density and speed. With all these improvement, the memory device packaging technology is also evolving rapidly, from the traditional leadframe packages to smaller chip scale packages (CSP) and wafer level packages (WLP). This paper will cover the four major topics: (1) Review of the DRAM packages and their applications - DRAM packages are used primarily in the fabrication of DIMM modules that are inserted to the motherboards in PC and notebook computers. With newer DRAM technology in double date rate (DDR) and its second generation, DDR2, to be deployed this year, the clock rate is much higher and the number of I/Os increasing. Packages therefore are changing from the leadframe TSOP type 2 to faster CSPs such as fine pitch BGA (FBGA). (2) Review of the flash **memory card** packages - non-volatile memory flash and SRAM packages are generally smaller and have had lower density of 256Mb and below. But more recently high density (512Mb) and hence larger flash devices are more common. The conventional package TSOP type 1 may become inadequate to meet new performance demands and the form factor for miniaturization. Alternative new packages such as VFBGA CSP are described. (3) Stacking - 3D stacking have now been widely utilized to increase the memory density and saving weight and space. The two main options for stacking - die stack and package stack, each has its own advantages and concerns. The selection criteria and suitable applications for both the DRAM DIMM modules and various flash **memory card** formats are discussed in detail. (4) Future trends and conclusion - the convergence of packaging technology for the computing and consumer electronics is apparent under the same market and technology drivers - form factor miniaturization, lightweight, low profile, high speed, and high performance. Packaging for high-density memory devices is moving toward faster and smaller CSP packages, with the technology and processes for wafer level CSP and wafer level 3D stacking emerging in the horizon.

Index Terms
Inspec

Controlled Indexing
fine-pitch technology flash memories **memory cards** notebook computers random-access storage stacking

Non-controlled Indexing

3D stacking CSP packages DDR2 DRAM DIMM modules DRAM packages SRAM packages USB drive VFBGA CSP chip scale packages clock rate compact flash computing electronics consumer electronics die stack digital revolution digital storage double date rate dynamic random access memory fine pitch BGA flash memory card packages form factor miniaturization gaming applications handheld electronics devices high-density memory devices leadframe TSOP type 2 leadframe packages memory cards memory density memory device packaging memory stick motherboards multimedia card nonvolatile memory flash notebook computing package stack packaging technology portable electronics devices secured digital volatile memory wafer level CSP wafer level packages

Author Keywords

Not Available

References

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